

HILL FIELD, DEPOT SUPPLY WAREHOUSES #2-3

HAER No. UT-85-F

(HILL FIELD, BUILDING 100)

(HILL FIELD, ORDNANCE RESEARCH & ADMINISTRATION BUILDING)

7278 4th Street

Layton Vicinity

Davis County

Utah

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
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HISTORIC AMERICAN ENGINEERING RECORD
HILL FIELD, DEPOT SUPPLY WAREHOUSES #2-3
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HAER No. UT-85-F

Location: 7278 4th Street, Hill Air Force Base, Layton Vicinity, Davis County, Utah

UTM: 12-417970-4551760

Date of Construction: 1941, 1967

Architect: Construction Division/Office of the Quartermaster General

Builder: Unknown

Present Owner: Hill Air Force Base

Present Use: Ordnance Research & Administration

Significance: These Depot Supply Warehouses housed principal storage activities at Hill Field (now Hill Air Force Base) during and after World War II. This building provides particularly vivid images of the processes involved in the storage and issue of general supplies to the U.S. Army Air Corps in support of the Pacific and European theaters of military operation during World War II. In addition, the 1960s reconfiguration of this building renders a unique picture of the accommodations needed for sensitive electronic equipment like early computers.

History: Building 100, is comprised up of the former Depot Supply Warehouses #2-3 (also called Buildings 103 and 104), which were merged into a single building in the late 1950s and early 1960s. Originally, Building 103 was used by the Purchasing and Contracting Offices, and Building 104 held general warehouse storage space. These buildings were primary warehouse facilities at the Ogden Air Materiel Command during World War II. Each building was a long, narrow structure that was accessed by railroad tracks that ran between them.

The first shipment of supplies was received at Ogden Air Depot in January 1941 and was followed by additional shipments in February and March. By May 1941, Ogden Air Depot was receiving an average of 20 train carloads of material per day. Building 100 had not yet been completed, and all available warehouse space was soon filled to capacity. Many overflow supplies were hauled by truck to a leased warehouse in Bountiful, and material that could be stored safely outdoors under tarpaulins covered over 500,000 square feet. A desperately needed 1,000,000 square feet of additional warehouse space was expected to be completed in October. Building 100 was completed in July 1941, and provided approximately 300,000 square feet of indoor storage space. As fast as warehouses could be completed, they were filled with supplies.

The December 1941 attack on Pearl Harbor brought a more intense flood of supplies to Ogden Air Depot as military goods were brought inland as a precaution against possible coastal bombing. Because of the shortage of indoor storage space, even more items were stacked outdoors and covered with tarpaulins.

No packing lists or shipping tickets were attached to the packing cases, so items could not be identified without unpacking them. Since the shipping crates were stored outside, they were not unpacked unless absolutely necessary. Several unsuccessful attempts were made to obtain the original packing lists from the manufacturers who shipped the materials.

Most available personnel on the Base were processing incoming aircraft, so few workers were available to catalog the incoming supply shipments. Only 16 of 1700 employees in the Depot Supply division had more than one year of experience with supply operations. To complicate matters further, most of the people who aided in the work had never seen aircraft parts like ailerons (movable flaps that were mounted to the wings of airplanes), or superchargers (compressors used to supply high pressure air to engine cylinders), which were prevalent among the incoming supplies. Thus many items could not be readily identified or cataloged, even when they were unpacked. Requests for items listed as "not in stock" were often present, but the items could not be issued because they had not been identified, inspected, or recorded.

Aircraft repair quotas set by Air Command were rarely met in the beginning months of World War II because needed materials were often difficult to procure, and the majority of special tools were unobtainable. Without other options, many of these items were designed and manufactured on the Base. As the war

progressed, these obstacles began to subside. A shortage of special parts, tools, equipment, and adequate working space continued to present challenges, but in gradually reduced proportion. Many items continued to be manufactured by the depot shops as the needs for them became sufficiently urgent.

A Special Parts Control Unit (later renamed Expediting Branch) was established in February 1942 to anticipate, evaluate, and minimize shortages of goods that were needed to complete aircraft repair, winterization, and modification projects. Specialized sub-depots were placed within each division to optimize accessibility. All non-expendable material for the engineering shops was requisitioned to the General Supply Department through expeditors, who maintained follow-up on material that could not be readily furnished by the Supply Department. At first, each individual shop was represented by an expeditor who traced materials required for each job. This involved investigations into all classes of supplies, and resulted in considerable confusion and duplication. After a few months, each expeditor was assigned certain property classes for all projects, which was much more efficient.

As the shops became specialized, production increased, and more parts and materials were secured from sources off the Depot. Close coordination was needed between stock tracers in the General Supply Department and the Expediting Branch in order to have material availability information always on hand for each shop. Standard methods for obtaining (and maintaining) this information involved a "Kardex System" that gave perpetual figures on the number of reparable items received in the shops and those completed, both daily and cumulative. The Kardex indicated whether each item left the shop serviceable, reparable, or condemned.

During the 1950s and 60s, Hill Field supplied items to military installations world-wide. Supply administrators continuously sought improved methods of operation that would increase efficiency and decrease labor demands. Project "WISE" ("Worldwide Implementation of Supply Economy") was implemented in 1950, which encouraged individual bases all over the world to develop and test methods of increased mechanization in warehouses.

In 1951, roller skates were introduced to warehouses like Building 100 that contained lighter items of stock. On a 30-day service test basis, eight airmen wore clamp-on skates with steel wheels while collecting stock from the bins and shelves to fill orders. At the end of the trial period, storekeepers found that the airmen wearing skates filled shipping vouchers approximately three times faster

than those who walked. The warehouse supervisor and other personnel generated considerable enthusiasm over this project. Difficulty was encountered, however, in the rapid deterioration of the clamp-on roller skates. The service was discontinued pending receipt of shoe-type, rubber-wheel skates.

Also in 1951, a new system to expedite the movement of freight from warehouses to packing and shipping points was initiated. Signs reading "yes" or "no" were placed outside the warehouses so truck drivers would know at a glance whether or not to stop or to proceed to the next point. Greater efficiency resulted, since trucks moved in a continuous circuit with no unnecessary stops.

1960s Reconfiguration

These supply warehouses were reconfigured in the late 1950s and early 1960s to provide accommodations for sensitive machinery and parts, including early computers and electronic equipment. Building 100 was formed when buildings 103 and 104, two distinct buildings, were merged together by a two-story addition that filled in the railroad track area between the buildings. The maintenance directorate converted the warehouses into offices and research space. In the late 1960s, the facility's environmental control system filtered airborne contamination particles down to 0.3 micron size at 99% efficiency. Temperature was controlled at 72 ± 4 degrees Fahrenheit and the humidity held at a maximum of 40%.

Several bays of the original buildings were modified to handle a special fire control system. This space was the site of Bomarc and Snark workload output. This building also contained LGM-30 and CIM-10 weapons systems support facilities, Titan LGM-25C work loads, and F4-C instrument and camera systems. Building 103 housed the first base "clean room" (completed in October 1961), an air conditioned and dust-free room for sensitive machinery and parts, including early computers and electronic equipment.

General

Description: Building 100, a very large one-story building, measures 181'-9" x 601'-9". The massing consists of two shallow gable/monitor roofs, joined side by side by a covered central loading area. The structure was originally two warehouse buildings on either side of the railroad tracks. The warehouse layout was similar to that for Building 5. Two additional bays were built in the space between the two buildings when the tracks were removed and the buildings, connected. These center bays housed lavatories, offices, and functions required by the warehouse spaces on each side. The warehouse area consists of 6 bays on each side, containing approximately 20,000 square feet each.